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## CHAPTER IV ALTERNATIVES

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## Alternatives

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### INTRODUCTION

This chapter discusses the process the Bureau of Reclamation (Reclamation) used to formulate alternatives to the proposed Federal action, describes the alternatives in detail, and provides a summary comparison of the effects of the alternatives on resources and environmental factors within the 5-mile zone study area (table IV-1, located at the end of this chapter).

Reclamation management goals and objectives and associated management actions were formulated to respond to issues and concerns raised by the public. The proposed management actions are described in detail for each alternative. Chapter V contains a complete analysis of the effects of the alternatives on resources and environmental factors.

### ALTERNATIVE FORMULATION

The Council on Environmental Quality's (CEQ) regulations implementing the National Environmental Policy Act (NEPA) require the consideration and evaluation of a range of reasonable alternatives to a proposed Federal action. The alternatives should meet the *purpose of* and *need for* the proposed action while avoiding or minimizing environmental impacts.

The NEPA *alternative formulation* process facilitates the *planning* process by providing a means by which Reclamation, with interested agencies and the public, can formulate alternative management plans in response to identified issues. The basic goal in formulating alternatives is to develop various combinations of land uses and resource management actions that respond to the issues identified during the planning process.

Reclamation developed planning criteria to help formulate and select combinations of land uses and management actions (alternatives) that could be reasonably implemented. Based on the following planning criteria, each action alternative would do the following:

- Meet the public need as expressed during the planning and NEPA compliance process (e.g., during open houses, public meetings, and in correspondence) and meet the goals and objectives formulated in response to the issues and concerns identified.
- Comply with applicable Federal, State, and local laws, regulations, and policies, while not interfering with authorized Reclamation project purposes.

- ~ Maintain Reclamation's capability to pump approximately 140,000 acre-feet of water a year from the Protective and Regulatory Pumping Unit (PRPU) to partially satisfy its 1944 Mexican Water Treaty requirements, as provided by Minute No. 242 of the International Boundary and Water Commission (Minute No. 242). (Minute No. 242 also limits groundwater pumping in the 5-mile zone to no more than 160,000 acre-feet per year).
- ~ Authorize land uses within the 5-mile zone study area only if they are compatible with Reclamation project purposes and other authorized uses.
- ~ Provide for partnership opportunities and shared responsibilities with other entities that may have a vested interest in the management of the study area.
- ~ Balance user needs, environmental protection, and anticipated funding and personnel limits.
- ~ Sustain or enhance the 5-mile zone study area's environmental resources.
- ~ Adhere to the guidance and direction provided in the Flat-Tailed Horned Lizard Rangewide Management Strategy (management strategy), prepared by the working group of the Flat-Tailed Horned Lizard Interagency Coordinating Committee, in May 1997.
- ~ Improve the resource condition within the 10-year life of the resource management plan.
- ~ Allow for construction of future authorized developments to comply with Minute No. 242 and Title I of the Colorado River Basin Salinity Control Act of 1974, as amended.

Using the planning criteria as a guide, Reclamation developed three action alternatives (i.e., alternatives that prescribe a change in resource management). In addition to the action alternatives, Reclamation also formulated a No Action Alternative, as required by the CEQ regulations implementing NEPA. The No Action Alternative describes the management of the 5-mile zone study area if an RMP were not implemented.

A brief description of each alternative follows:

- ~ No Action Alternative (Alternative A)
- ~ Natural Resources Conservation/Protection Alternative (Alternative B)
- ~ Recreation, Community, and Commercial Development Alternative (Alternative C)
- ~ Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development Alternative (Alternative D)

Under **Alternative A** (No Action Alternative), Reclamation resource management policies and practices within the study area would not change. Management actions to

implement programs and policies would occur on a case-by-case basis to meet Federal, State, and local laws and regulations. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Land use authorizations, such as licenses, leases, and permits, would be issued on a case-by-case basis, as they are currently.

Under **Alternative B** (Natural Resources Conservation/Protection Alternative), Reclamation resource management policies and practices within the study area would change. Management actions would be implemented that would enhance and protect environmental and cultural resources within the study area. In particular, flat-tailed horned lizard habitat protection would be maximized, pursuant to the 1997 Flat-Tailed Horned Lizard Rangewide Management Strategy. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Existing second-party land uses would be scrutinized and eliminated when possible. Public access and recreational use within the study area would be limited to benefit natural and cultural resources. Recreational off-highway vehicle (OHV) use would be eliminated.

Under **Alternative C** (Recreation, Community, and Commercial Development Alternative), Reclamation resource management policies and practices within the study area would change. Public access and recreational use within the study area would be maximized. Opportunities for nature study, hiking, wildlife observation, camping and day use, and OHV use would be provided to the greatest extent possible, while adhering to the guidance and direction contained in the 1997 Flat-Tailed Horned Lizard Rangewide Management Strategy. Reclamation's capability to meet its water delivery obligations to Mexico would be maintained. Licenses, leases, permits, and other land use authorizations would be issued when compatible with public use of Reclamation lands. Areas deemed appropriate for community expansion, such as utility corridors, transportation routes, community open space, airport, landfills, sewage disposal sites, and recreation and leisure facilities, would be accommodated, as appropriate. Land exchanges/transfers within the 5-mile zone study area would be encouraged.

Under **Alternative D** (Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development), Reclamation resource management policies and practices within the study area would change. Land use authorizations would be issued on a limited basis for recreation, community, and commercial developments while maintaining Reclamation's capability to meet its water delivery obligations to Mexico, protecting natural and cultural resources, and conserving flat-tailed horned lizard habitat. Land exchanges/transfers within the 5-mile zone study area would be considered on a limited basis either to protect or enhance the natural or cultural resources in the eastern portion of the study area or to accommodate recreation, community, or commercial developments in the western portion of the study area.

## ALTERNATIVE ELEMENTS

A Reclamation interdisciplinary team (team) developed alternative “elements” that would best respond to identified public and Reclamation issues and concerns. Each alternative is made up of a unique combination of elements, and each alternative would achieve a different desired future condition in the 5-mile zone study area, if implemented.

Following is a list of elements common to all alternatives. Following the list of common elements is a detailed description of each alternative. Each alternative is described according to the seven issue categories listed in chapter III. (Attachment E is a table that summarizes the elements of each alternative.) A list of alternative elements eliminated from further consideration is located at the end of this chapter.

### *Elements Common to All Alternatives*

Elements common to all alternatives, including the No Action Alternative, include the following:

Reclamation would ensure that existing management of lands within the 5-mile zone study area continues to follow Reclamation’s *Policies and Directives and Standards* as well as Federal laws, rules, regulations, and Executive orders.

- ~ Reclamation would follow the updated 2001 Federal Fire Management Policy and the Secretary of the Interior’s 2001 policy letter and develop a fire management plan.
- ~ Reclamation would not allow private, exclusive use of its lands.
- ~ Reclamation would continue with the terms and conditions of the 1986 lease agreement with Yuma County for the county’s operation of Rolle Airfield.
- ~ Reclamation would maintain its capability to expand Reclamation’s Yuma Desalting Plant sludge disposal site (A-22 site) within the 5-mile zone study area and operate and maintain this site in accordance with Aquifer Protection Permit No. P100180 issued in 2003.
- ~ Reclamation would maintain its capability to pump approximately 140,000 acre-feet of water a year from the PRPU to meet its water delivery obligations to Mexico, as provided by Minute No. 242. (Minute No. 242 also limits groundwater pumping in the 5-mile zone to no more than 160,000 acre-feet per year.)
- ~ Reclamation would continue to regulate the quantity of water pumped from wells within the 5-mile zone by enforcing stipulations contained in the land use authorization document (license, lease, or permit) that Reclamation may have granted to another party.

- ~ Reclamation would continue to cooperate with the IBWC, U.S. Geological Survey, and private municipal and industrial and agricultural water users to account for water use within the 5-mile zone study area.
- ~ Reclamation would continue to maintain and monitor its observation wells within the 5-mile zone study area and install new observation wells, as needed.
- ~ Reclamation would process the application from the U.S. Border Patrol (Border Patrol) to increase the width of its protective zone from 90 to 150 feet.
- ~ Reclamation would cooperate with ADOT and the Federal Highway Administration to obtain needed permits and environmental clearances to construct the Area Service Highway (ASH) within the study area, including a major interchange at 23<sup>rd</sup> Street and Avenue E.
- ~ Reclamation would cooperate with appropriate entities, such as the city of San Luis, Yuma County, and ADOT, to obtain needed permits and environmental clearances to construct a major road from the ASH interchange, at 23<sup>rd</sup> Street and Avenue E, north along Avenue E to Rolle Airfield.
- ~ Reclamation would cooperate with ADOT to ensure appropriate mitigation measures or procedures of avoidance are implemented if ASH construction adversely affects existing or planned well sites or other facilities within the PRPU or if it adversely affects the flat-tailed horned lizard or its habitat.

Reclamation would cooperate with the city of San Luis, Arizona, and the Arizona Department of Transportation (ADOT) to provide a water and sewer utility corridor along 23<sup>rd</sup> Street to the minimum security prison (Avenue B).

- ~ Reclamation would cooperate with the city of San Luis to obtain needed permits and environmental clearances to construct an improved highway from the city of San Luis east along 23<sup>rd</sup> Street to the ASH interchange.
- ~ Reclamation would cooperate with the city of San Luis, Arizona, to obtain needed permits and environmental clearances to construct a truck route from San Luis to the new commercial port-of-entry. The truck route would parallel the international boundary east from San Luis to 24<sup>th</sup> Street, then follow 24<sup>th</sup> Street east to Avenue B, then continue south to the port-of-entry.
- ~ When cooperating with different entities on obtaining needed permits and clearances, Reclamation would consider its own project needs and access.
- ~ Reclamation would ensure that new roads are fenced to protect the flat-tailed horned lizard, if fencing does not interfere with the Border Patrol's mission.

Reclamation would cooperate with Yuma County when the elements of the Rolle Airfield airport master plan are initiated.

- ~ Reclamation would continue its current level of cooperation with the Yuma Area Water Resources Management Group (YAWRMG) in an effort to manage the water resources in the Yuma area.

- ~ Reclamation would allow hunting to continue.
- ~ Reclamation would adhere to the mitigation requirements of the 1997 Flat-Tailed Horned Lizard Rangewide Management Strategy.

Reclamation would continue to fully comply with Section 106 of the National Historic Preservation Act for Federal undertakings. Reclamation would consult with the State Historic Preservation Officer (SHPO) and area Indian tribes, as required by 36 Code of Federal Regulations (CFR) 800, as revised, to locate and identify any cultural resources within the study area before initiating any Federal undertaking.

## **ALTERNATIVES DESCRIPTION**

This section describes each of the alternatives in detail. The descriptions do not include the elements common to all alternatives, which were discussed previously. Attachment E summarizes the elements of the alternatives in table format.

### ***No Action (Alternative A)***

#### **Land Use**

Under Alternative A, Reclamation would not develop a comprehensive land use strategy. As such, Reclamation would continue current land use strategies, would not allow land transfers or exchanges, and would continue to issue land use authorizations on a case-by-case basis, as it has in the past.

Reclamation would continue its current level of cooperation with adjacent landowners to ensure that land uses are compatible. Social, physical, environmental, or facility carrying capacities would not be established. Reclamation would continue its current level of effort to manage noxious weeds.

In addition to the road construction discussed under “Elements Common to All Alternatives,” Reclamation would allow new road construction and road improvements (paving and widening) throughout the study area on a case-by-case basis and would require appropriate mitigation for any new road construction and associated surface disturbance.

#### **Water Use**

Reclamation would not initiate a comprehensive strategy to limit water use within the study area and would address the accounting of water imported into the 5-mile zone study area on a case-by-case basis.

### **Partnerships and Coordination with Other Entities**

Under Alternative A, Reclamation would not seek additional public/private partnerships or volunteers. Reclamation would continue its current level of coordination with the Border Patrol, including its current level of cooperation on flat-tailed horned lizard management.

Reclamation would continue its current level of cooperation with the Bureau of Land Management (BLM) on actions in the study area requiring both agencies' involvement.

Reclamation would continue its current level of cooperation with the Marine Corps Air Station (MCAS) on flat-tailed horned lizard management.

With the Arizona Game and Fish Department (AGFD), Reclamation would continue its current level of cooperation regarding wildlife and special status species management and OHV use, enforcement, and signing.

Reclamation would not establish a 5-mile zone study area working group and, in general, would not enter into any cooperative efforts other than those listed under "Elements Common to All Alternatives."

### **Natural and Cultural Resources Management**

Reclamation would continue its current level of effort to protect T&E and other special status species and its current level of effort to manage the flat-tailed horned lizard but would make no increased effort to enhance the Border Patrol's awareness of flat-tailed horned lizard issues and protection measures.

### **Public Information and Education**

Reclamation would continue its current level of public information and education and maintain the same type and number of signs within the study area.

### **Recreation Management**

Reclamation would not provide any camping facilities or opportunities, day use facilities or opportunities, or trails and would allow the current level of OHV use to continue.

### **Health and Safety**

Reclamation would install no additional fencing and would enforce existing rules and regulations as it does today. Additionally, Reclamation would not provide additional signage; would continue its current trash removal efforts; and would not provide water stations for illegal immigrants and others.

## ***Natural Resources Conservation/Protection (Alternative B)***

### **Land Use**

Under Alternative B, Reclamation would develop a comprehensive land use strategy that would, foremost, ensure that authorized uses within the 5-mile zone study area adhere to the mitigation measures outlined in the 1997 Flat-Tailed Horned Lizard Rangewide Management Strategy.

Reclamation would use geographic information system (GIS) mapping as a planning tool to help managers make land use suitability and capability decisions and would consider soil conditions and other environmental conditions or limitations when developing facilities.

Reclamation would attempt to implement the management actions identified in the resource management plan (RMP) within the 10-year life of the RMP, depending on funding, personnel limitations, and cooperation of other entities. In implementing these management actions, Reclamation would allow only those land uses that do not adversely affect existing or proposed Reclamation project features, such as laterals, canals, well sites, or sludge ponds; and, if possible, avoid any ground-disturbing activities in environmentally sensitive areas, such as flat-tailed horned lizard habitat areas.

Reclamation would carefully review any proposed land exchanges or land use authorizations that would occur within existing or proposed Reclamation well or facility locations to ensure that the exchange or transfer would not affect Reclamation's project purposes.

Reclamation would allow land transfers or exchanges only to benefit natural or cultural resources while protecting authorized Reclamation purposes. Lands received into Federal ownership should be contiguous to the study area.

If the city of San Luis were to purchase the Hillander "C" tract, Reclamation would consider exchanging this tract for certain Federal lands in the western portion of the study area, but only to benefit natural and cultural resources.

Through land transfers or exchanges, Reclamation would not allow the base land acreage within the study area to decrease and would not allow the sale of Reclamation land without land exchanges or other forms of just compensation. Reclamation would include restrictive clauses in conveyance documents for Federal lands exchanged to private parties to ensure that potential uses do not impede Reclamation's ability to manage the 5-mile zone study area for Reclamation and other federally mandated purposes.

Reclamation would continue to follow existing requirements and regulations governing the issuance of land use authorizations within the study area (i.e., the RMP does not change the procedures). Reclamation would monitor land use authorizations to identify conflicts and take appropriate actions if conflicts occur. Reclamation would not issue

any land use authorizations within the Yuma Desert Management Area and would limit new land authorizations in the western portion of the study area to those that are absolutely necessary.

Reclamation would not allow landscaping for development unless it is determined to be water-conserving (e.g., xeriscaping). Reclamation would not allow uses that adversely affect T&E or other special status species or critical habitat unless proper mitigation measures are provided. To protect water quality, Reclamation would not allow agricultural uses on its lands within the study area.

Reclamation would avoid cultural resources and Indian sacred sites when issuing land use authorizations pursuant to existing regulations and Reclamation policy and would not allow land uses that adversely affect Indian trust assets without proper mitigation.

Reclamation would protect its existing 21 PRPU well sites and 23 future PRPU wells sites by not allowing land use authorizations within a 600-foot corridor of these well sites.

In general, existing land use authorizations would continue, but Reclamation would eliminate outgrants when possible.

Before finalizing any future land uses within the study area, Reclamation would define future water needs and identify solutions to address water quantity requirements to sustain such uses.

Reclamation would increase its efforts to cooperate with adjacent landowners to ensure that land uses are compatible and will result in minimal adverse effects on water quality.

Reclamation would not establish social, physical, environmental, or facility carrying capacities.

In addition to following the updated 2001 Federal Fire Management Policy and the Secretary of the Interior's 2001 policy letter and to developing a fire management plan, Reclamation would suppress fires in the Yuma Desert Management Area using a mix of the following methods: (1) aerial attack with fire retardants, (2) crews using hand tools to create fire breaks, (3) mobile attack engines limited to public roads, designated open routes, and routes authorized for limited use. Reclamation would not allow earth moving equipment (such as bulldozers) except in critical situations to protect life, property, or resources. Post-suppression mitigation would include rehabilitation of fire breaks and other ground disturbances using hand tools.

Reclamation would initiate a comprehensive weed control program to effectively eliminate and prevent the spread of noxious weeds. However, Reclamation would recommend not applying pesticide treatments within the Yuma Desert Management Area and would revegetate land reclaimed by closing OHV trails/roads with native plant species.

Reclamation would not allow new public road construction or improvements (paving and widening) other than that discussed under “Elements Common to All Alternatives.” Reclamation would allow maintenance of existing primary roads, recognizing that this may be necessary to prevent proliferation of parallel routes.

In addition to providing a utility corridor along 23<sup>rd</sup> Street to the minimum security prison (Avenue B), Reclamation would designate additional utility corridors along the proposed truck route from the city of San Luis and along the proposed roads from the proposed ASH interchange at 23<sup>rd</sup> Street and Avenue E north to Rolle Airfield and south to the new commercial port-of-entry. Reclamation would confine all future utilities to designated corridors within the study area.

Reclamation would avoid adverse effects to water quality or loss of unique desert habitat and mitigate when expanding its Yuma Desalting Plant sludge disposal site.

### **Water Use**

If groundwater pumping in the 5-mile zone study area reaches or approaches 160,000 acre-feet per year (the limit stipulated by Minute No. 242), Reclamation would require a land use applicant within the study area to obtain water from a surface or groundwater source outside the 5-mile zone study area. Any use of groundwater in the study area would be subject to reduction or termination if Reclamation needs the water to meet its delivery obligations to Mexico. Under Alternative B, Reclamation would consider water pumped from existing and future wells within the 5-mile zone as Colorado River water and implement procedures to account for such water in accordance with Article V of the Supreme Court Decree in *Arizona v. California*. Reclamation would evaluate requests for increases in water usage within the study area based on established Reclamation water accounting procedures to protect its ability to meet its water delivery obligations to Mexico and other contractual agreements. In general, Reclamation would avoid groundwater contamination or degradation of water quality.

### **Partnerships and Coordination with Other Entities**

Under Alternative B, Reclamation would seek public/private partnerships and volunteers to support management of the 5-mile zone study area.

If areas are closed to public use, Reclamation would enter into a cooperative agreement(s) with appropriate entities to enforce such closure(s) (i.e., area(s) designated as closed to protect the public safety or to protect project features such as laterals, canals, well sites, sludge ponds, or natural resources).

Reclamation would enter into an agreement with the Border Patrol that outlines each agency’s roles and responsibilities within the 5-mile zone study area. Existing and future drag roads and surveillance towers would be identified, and Reclamation should

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<sup>1</sup> Decree of the United States Supreme Court in *Arizona v. California*, dated March 9, 1964.

approve locations of future drag roads and towers within the study area. So as not to interfere with the Border Patrol's mission, Reclamation would coordinate with the Border Patrol on the limited construction of fences within the 5-mile zone study area. To protect Reclamation facilities and flat-tailed horned lizard habitat, in cooperation with the Border Patrol, Reclamation would establish reasonable and necessary standards and guidelines for Border Patrol off-road vehicle use. Reclamation would consider allowing off-road vehicle use within the study area, when necessary, to fulfill the Border Patrol's primary mission.

Under Alternative B, Reclamation would increase its efforts with BLM to redefine each agency's responsibilities within the study area, pursuant to the existing agreement and *Departmental Manual 613*.

Reclamation would cooperate with the MCAS to limit recreation use in the Yuma Desert Management Area within the 5-mile zone study area and along the western boundary of the Barry M. Goldwater Range and as well as cooperate on flat-tailed horned lizard management issues and projects.

Under Alternative B, Reclamation would require appropriate mitigation for lost habitat and increased risk of vehicle collision with flat-tailed horned lizards associated with ASH.

Reclamation would enter into agreements with AGFD to protect wildlife habitat; to develop public education programs; and to develop and implement inventory, monitoring, and protection plans for other special status species.

Hunting access and enforcement would be the responsibility of AGFD through an agreement with Reclamation. Reclamation also would enter into an agreement with AGFD to enforce OHV closures.

Reclamation would review the Yuma County planning and zoning commission's comprehensive plan and assist with its goal to "keep population out of valleys."

Under Alternative B, Reclamation would establish a 5-mile zone study area working group to help resolve issues. Reclamation also would enter into appropriate agreements that define the roles and responsibilities of entities involved in constructing, operating, and maintaining water stations for illegal immigrants and others.

### **Natural and Cultural Resources Management**

Reclamation would define and implement management actions to minimize loss or degradation of flat-tailed horned lizard habitat; mitigate and compensate, as needed, PRPU project and RMP management action impacts on the flat-tailed horned lizard both within and outside the Yuma Desert Management Area; and implement various protective measures within the Yuma Desert Management Area.

As discussed under "Partnerships and Coordination with Other Entities," Reclamation would increase its efforts to better protect other special status species by partnering with

AGFD. Reclamation also would provide education programs and materials to Border Patrol to enhance its awareness of flat-tailed horned lizard issues and protection measures.

Under Alternative B, Reclamation would, in consultation with the SHPO and area Indian tribes and, based on the Class I survey, develop a research design for conducting Class II or III surveys to determine areas of high or low potential for cultural resources, including traditional cultural properties, within the study area. Reclamation then would conduct intensive surveys of areas with high potential for cultural resources and/or any areas scheduled for ground-disturbing or potentially ground-disturbing activities to locate cultural resources. During ground-disturbing activities, Reclamation would make every effort to avoid significant cultural resources.

### **Public Information and Education**

Reclamation would educate visitors and other agencies involved in managing the study area about the appropriate use of Reclamation lands and facilities and provide interpretive maps, brochures, pamphlets, and expanded Internet information services to the public. Reclamation would prepare and make available public information and education about the Yuma Desert Management Area, including the purposes of the flat-tailed horned lizard management areas and pertinent regulations. Interpretation and public information would emphasize appreciation and protection of the natural and cultural resources. Printed and Internet materials would be bilingual, as needed.

Reclamation would inventory signing needs and post appropriate bilingual signs that provide rules and regulations for the appropriate use of Reclamation lands and resources. Reclamation also would post bilingual interpretive signs emphasizing appreciation of the natural environment and promoting conservation and preservation in areas with interesting natural or cultural values. In addition, Reclamation would post bilingual OHV closure signs in appropriate areas. Bilingual signs near the international boundary would indicate the location of the boundary between the two countries.

### **Recreation Management**

Reclamation would not provide any camping facilities or opportunities, day use facilities or opportunities, or trails under Alternative B.

Hunting would continue at current levels, except Reclamation would limit hunting in designated areas in cooperation with AGFD and other entities, when necessary. (Also see "Partnerships and Coordination with Other Entities.") Reclamation would eliminate OHV use, except for emergency situations and Border Patrol purposes. All OHV trails/roads would be closed, and rehabilitation measures would be implemented. The public would be restricted to existing public roads, and Reclamation would post bilingual signs prohibiting OHV use, as appropriate, and would prepare a travel management plan detailing the OHV trails/roads to be closed.

## **Health and Safety**

Under Alternative B, Reclamation would ensure that project features and structures are properly fenced to protect the safety of the public and to protect facilities from vandalism. Reclamation would keep public use away from existing or proposed Reclamation project features.

Reclamation would increase its efforts to enforce existing rules and regulations to discourage random shooting and OHV use to reduce or eliminate wildlife harassment and habitat loss and would promote the Crime Witness Protection Program.

Reclamation would post bilingual rules and regulations governing the use of Reclamation lands at visitor contact areas and post bilingual warning signs to protect visitors.

Reclamation would remove abandoned vehicles, washers, dryers, refrigerators, and other trash from illegal dump sites within the study area and initiate efforts, including enforcement of existing laws, to keep the study area free of trash.

Finally, Reclamation would install water stations for illegal immigrants and others.

## ***Recreation, Community, and Commercial Development (Alternative C)***

### **Land Use**

The comprehensive land use strategy for the 5-mile zone study area would be the same as under Alternative B, *except* that under Alternative C, the strategy would maximize recreation, community, or commercial development within the study area. Recreation, community, or commercial development would be concentrated in the western portion of the study area, but development would be allowed throughout the study area if appropriate mitigation measures for the flat-tailed horned lizard could be achieved.

Reclamation would possibly allow land transfers or exchanges (1) to benefit public recreation facilities and opportunities or (2) to accommodate community or commercial development, while protecting Reclamation's project purposes. (Lands received into Federal ownership should be contiguous to the study area.)

Under Alternative C, if the city of San Luis were to purchase the Hillander "C" tract, Reclamation would consider exchanging certain lands of equal value in the western portion of the study area for recreation, community, or commercial development. All other provisions of the land transfer/exchange policy would be the same as under Alternative B.

Issuance of land use authorizations would be the same as under Alternative B, *except* that under Alternative C, Reclamation would issue land use authorizations throughout the study area when compatible with recreation, community, or commercial development. Land use authorizations could be issued in the Yuma Desert

Management Area, but only with appropriate flat-tailed horned lizard mitigation. Also, unlike Alternative B, outgrants would not be eliminated when possible.

Compatibility with land uses would be the same as under Alternative B.

Under Alternative C, Reclamation would establish carrying capacities during the planning phases of development to determine the location, type, and appropriate number of public use facilities to be constructed and to determine those that would provide maximum protection of natural resources. Capacities would emphasize controlled public access and reduce use in some areas. To help identify physical and environmental carrying capacities, Reclamation would use GIS mapping.

Fire and noxious weed management would be the same as under Alternative B.

In addition to the construction of primary roads discussed under “Elements Common to All Alternatives,” Reclamation would allow new primary road construction, improvements (paving and widening), and maintenance throughout the study area to provide access to recreation, community, and commercial developments. Reclamation would keep this construction to a minimum by coordinating access needs and avoiding conflicts and replication in road use, development, and management. Reclamation also would allow secondary road construction, improvements, and maintenance to provide access to campgrounds, day use facilities, and trailheads. Reclamation would require appropriate mitigation for any new primary and secondary road construction and associated surface disturbance.

Utility corridors would be the same as under Alternative B.

Provisions for expanding Reclamation’s Yuma Desalting Plant sludge disposal site would be the same as under Alternative B.

### **Water Use**

Water use would be the same as under Alternative B.

### **Partnerships and Coordination with Other Entities**

Partnerships and coordination with other entities would be the same as under Alternative B, *except* the recreation managing partner, in cooperation with AGFD and other concerned entities, would monitor developed public use areas to determine if limited hunting closures should be initiated to protect visitors. (State laws already prohibit shooting within ¼ mile of occupied facilities.) Additionally, under Alternative C, Reclamation would partner with AGFD to enhance habitat for game species, such as doves, and cooperatively establish and enforce an OHV plan. Also, in cooperation with other entities, Reclamation would agree to establish a nature center in the western portion of the study area to interpret the unique Sonoran Desert and to educate the public on the responsibilities of different government entities.

### **Natural and Cultural Resources Management**

Natural and cultural resources management would be the same as under Alternative B.

### **Public Information**

Public information and education would be the same as under Alternative B.

Under Alternative C, Reclamation would prepare a comprehensive sign plan for the study area, including establishing an area theme, inventory, installation, and operation and maintenance plan. Reclamation would post bilingual directional, informational, and warning signs to guide and protect the visitors within the study area, to improve traffic flow, and to designate OHV use areas and regulations. Bilingual signs near the international boundary would indicate the location of the boundary between the two countries.

Where appropriate, Reclamation would post bilingual interpretive signs that emphasize appreciation and protection of natural and cultural resources.

### **Recreation Management**

Under Alternative C, campgrounds would be constructed outside the Yuma Desert Management Area (i.e., in the western portion of the study area); however, if appropriate mitigation measures can be achieved, developments in the eastern portion of the study area would be considered.

Overnight campgrounds and support facilities, such as potable water, restrooms, picnic tables, shade structures, showers, and limited utility hookups, would be provided, based on public demand. Occupancy would be limited to 14 days.

In addition, recreational vehicle campgrounds would be provided to accommodate visitors for extended periods of time, not to exceed 6 months. Support facilities for these types of campgrounds could include restrooms, showers, trailer dump stations, laundry facilities, sewers, electricity, and water hookups.

Pursuant to Reclamation laws and policy, Reclamation would seek a non-Federal government entity to plan, develop, operate, and maintain these recreation facilities and to manage public use within the study area. If a non-Federal government entity cannot be obtained to manage recreation facilities and the public uses within the study area, Reclamation would investigate the feasibility of securing a commercial business to construct and operate campgrounds and support facilities. In either case, campgrounds and support facilities would be constructed in consultation with the Border Patrol to ensure that its roles and responsibilities are not impeded. Facilities would follow appropriate design standards and blend into the surrounding landscape.

To protect public safety and Reclamation investments, Reclamation would not allow recreation developments or public use on or adjacent to existing or proposed Reclamation project features, such as the 242 Lateral or well field.

Before constructing any public use facilities, such as campgrounds or trails, Reclamation would prepare site-specific master plans. The types and number of facilities would be based on public need, site evaluations, and input from appropriate entities and user groups.

Alternative C would maximize day use facilities that support recreation throughout the study area, such as hiking, wildlife observation, and nature study, based on public demand. Reclamation would consider urban recreation opportunities, such as golfing, tennis, baseball, and biking, and a nature center in the western portion of the study area.

With a managing partner, and if appropriate mitigation measures can be achieved, nonmotorized, multi-use trails would be provided. The trails would be limited to foot traffic, equestrians, nonmotorized bicycles, and wheelchair users (motorized and nonmotorized) and would provide hiking, photography, wildlife observation, interpretation, and nature study opportunities. The trails would be located primarily in the western portion of the study area. However, limited trail development would be allowed in the eastern portion of the study area if appropriate flat-tailed horned lizard mitigation measures could be achieved.

All trails would be paved or hardened to provide easy access for all users. To minimize adverse effects, a comprehensive trail plan would be developed that would detail, among other things, site locations, lengths, materials, signing needs, and costs. Trail development would follow appropriate design standards.

Hunting would be the same as under Alternative B.

Recreational OHV use would be allowed in certain areas in the western portion of the study area (i.e., outside the Yuma Desert Management Area), and an OHV plan would be established following the guidelines contained in 43 CFR 420 and existing Executive orders. Public use would be restricted to designated public roads and designated OHV trails/roads.

### **Health and Safety**

Fencing, enforcement of existing rules and regulations, posting of bilingual rules and regulations and warning signs, trash removal, and installation of water stations for illegal immigrants and others would be the same as under Alternative B. In addition, under Alternative C, when recreation facilities are constructed, Reclamation would respond to and correct unsafe conditions immediately and ensure that visitor health and safety is the primary concern.

***Natural Resources Conservation/Protection with Limited Recreation, Community, and Commercial Development (Alternative D)  
(Preferred Alternative)***

**Land Use**

The comprehensive land use strategy under Alternative D would be the same as under Alternative B, *except* that it would provide for limited recreation, community, and commercial development in addition to natural resources conservation and protection. The limited recreation, commercial, and community development would be concentrated in the western portion of the study area; the eastern portion of the study area (Yuma Desert Management Area) would be protected and enhanced.

Under Alternative D, Reclamation would allow land transfers or exchanges to benefit (1) recreation, community, and commercial development on a limited basis; (2) flat-tailed horned lizard habitat; or (3) natural or cultural resources. These transfers or exchanges would decrease habitat fragmentation. (Lands received into Federal ownership should be contiguous to the study area.) All other provisions of the land transfer/exchange policy would be the same as under Alternative B.

Land use authorizations would be the same as under Alternative C, except for the following:

Reclamation could issue land use authorizations in the western portion of the study area on a limited basis to benefit limited community, recreation, and commercial development.

Reclamation would issue land authorizations within the Yuma Desert Management Area only for public health, safety, and security purposes.

Reclamation would ensure balance among wildlife resources, recreational opportunities, and authorized activities issued through land use agreements and would prefer short-term compatible uses of Reclamation lands but allow long-term uses under strict conditions/stipulations.

Compatibility with adjacent land uses would be the same as under Alternative B.

Establishment of carrying capacities would be the same as under Alternative C.

Fire and noxious weed management would be the same as under Alternative B.

Under Alternative D, Reclamation would allow no new primary public road construction other than that discussed under “Elements Common to All Alternatives.” Reclamation would allow existing primary road maintenance, recognizing this may be necessary to prevent proliferation of parallel routes.

Reclamation would allow secondary road construction to provide access to campgrounds, day use facilities, and trailheads but would require appropriate mitigation.

Utility corridors would be the same as under Alternative B.

Provisions for expanding Reclamation's Yuma Desalting Plant sludge disposal site would be the same as under Alternative B.

#### **Water Use**

Water use would be the same as under Alternative B.

#### **Partnerships and Coordination with Other Entities**

Partnerships and coordination with other entities would be the same as under Alternative B, *except* that (1) partnership with AGDF to enhance habitat for game species (2) and monitoring with AGFD and other concerned entities of any developed public use areas to determine if limited hunting closure(s) should be initiated would be the same as under Alternative C.

#### **Natural and Cultural Resources Management**

Natural and cultural resources management would be the same as under Alternative B.

#### **Public Information**

Public information and education and signing and interpretation would be the same as under Alternative B.

#### **Recreation Management**

Under Alternative D, limited overnight campgrounds would be provided in the western portion of the study area, based on public demand. Limited support facilities, such as potable water, restrooms, trash receptacles, and shade structures, also would be provided. Occupancy would be limited to 14 days, or to a length of stay that Reclamation determines is appropriate. No overnight campgrounds would be located within the Yuma Desert Management Area, and no extended stay recreational vehicle campgrounds would be constructed. All other aspects of campground development would be the same as under Alternative C.

Protection of public safety and Reclamation investments would be the same as under Alternative C.

Day use facilities that support recreation opportunities would be provided in the western portion of the study area on a limited basis.

With a managing partner and with appropriate mitigation, Reclamation would provide a limited number of nonmotorized, multi-use trails only in the western portion of the study area. Portions of certain trails would be paved or hardened to provide access to persons with disabilities. Trail development would follow appropriate design standards.

Hunting and OHV use would be the same as under Alternative B.

### Health and Safety

Fencing, enforcement of existing rules and regulations, posting of rules and regulations and warning signs, trash removal, and installation of water stations for illegal immigrants and others would be the same as under Alternative B. When recreation facilities are constructed, Reclamation would respond to and correct unsafe conditions immediately and ensure that visitor health and safety is the primary concern, as under Alternative C.

## ELEMENTS ELIMINATED FROM FURTHER CONSIDERATION

Reclamation considered several elements but eliminated them from further consideration for the following reasons.

- ❖ *How could any planned or potential diversions of the Colorado River water affect Indian tribes and their allocation of water?*

The Colorado River and its surface water diversions are outside the scope of this resource management plan environmental assessment (EA). The RMP/EA addresses only those lands within the 5-mile zone study area and the protection of Reclamation's capability to pump groundwater.

- ❖ *The State of Arizona, Department of Corrections, minimum security prison complex currently houses 2,211 inmates, 600 correctional personnel, and 130 staff. In addition to our daily water usage (city of San Luis), it is possible that we could increase our population by as much as 35 percent. It is very important that we continue to have unrestricted use of our present water supply in order to meet current usage requirements and future needs. If this Federal action could have any adverse effect on the city of San Luis' capability to meet the needs of this complex, it is imperative that we be engaged in discussions.*

The RMP/EA does not attempt to quantify the city San Luis' existing or future water supply needs. However, the RMP/EA will address the establishment of utility corridors that will enable the city of San Luis to provide the infrastructure to deliver its water from one location to another.

- ❖ *Provide for normal drainage pumping and tail water from the East and West Canals in calculations.*

The East and West Canals are not within the 5-mile zone study area; therefore, this RMP/EA does not address their operation and maintenance.

Table IV-1.—5-Mile Zone Study Area RMP/EA  
Summary Effects of Alternatives on Resources

Alternative	Air Quality	Noise	Soils	Land Use	Transportation	Groundwater	Vegetation and Wildlife	Special Status Species	Recreation and Visual Quality	Economics	Cultural Resources	Indian Sacred Sites	Indian Trust Assets	Environ-mental Justice
No Action (Alternative A)	Existing conditions would continue.	Unrestricted OHV use, new developments, and increased vehicle use of new roads could lead to increased noise levels.	New developments could increase wind erosion of soils.	Potential for conflicting land uses; social, physical, environmental, or facility carrying capacities could be exceeded; potential adverse effect on natural and cultural resources and on Reclamation's ability to protect PRPU project purposes.	Continuing adverse effects from uncontrolled OHV use. Public demand for access would be met.	If new developments rely on groundwater, potential reduction of groundwater availability.  Continuing effect of irrigated agriculture on groundwater quality.	Continuing adverse effects from habitat loss and degradation.	Direct injuries, mortalities, habitat loss, and degradation would continue unabated.	Public demand for developed and urban recreation facilities and opportunities would go unmet.  Visual quality could be expected to degrade.	New development would continue to foster economic growth.	Existing conditions would continue.	Unauthorized public use would still have potential to adversely affect sites.	No effect.	Existing conditions would continue.
Natural Resources Conservation/ Protection (Alternative B)	Maximum benefits because of increased vegetative cover and less development, leading to fewer airborne particulates.	Reduced noise levels because recreational OHV use would be eliminated and less development would be allowed.	Same as Alternative A, except that eliminating OHV use would decrease wind erosion of soil in denuded areas.	Least benefit to nearby communities; greatest benefit to natural and cultural resources.	Public demand for access would be minimally met.	Similar effects on groundwater availability as Alternative A; potential benefit to groundwater quality.	Maximum benefits because of improved habitat protection and restoration.	Factors causing mortalities and injuries would be educed because of habitat protection and enhancement measures.	Public demand for developed, dispersed, and urban recreation facilities and opportunities and OHV use would go unmet. Many recreationists would be displaced. Would best protect visual quality.	Possible adverse effects on the agricultural sector of the economy.	Eliminating recreational OHV use and conducting intensive surveys for cultural resources would benefit cultural resources.	Eliminating recreational OHV use would reduce potential adverse effects.	Same as Alternative A.	Possible adverse effects on minority farm workers. Water stations would benefit illegal immigrants and others.
Recreation, Community, and Commercial Development (Alternative C)	Greatest potential adverse effects on air quality because of development of unsurfaced roads and parking areas and increased industrial and vehicular emissions.	Greatest adverse effects on noise levels because of development of new facilities and increased vehicle use of new and existing roads and OHV areas.	Same as Alternative A, plus increased protection would be needed to prevent soil erosion during construction of facilities.	Greatest benefit to nearby communities; least benefit to natural and cultural resources.	Public demand and need for access would be fully met.	Potential reduction of groundwater availability; potential benefit to groundwater quality.	Adverse effects because of accelerated habitat loss and degradation.	Significant increase in factors causing mortalities and injuries as well as habitat loss and degradation.	Public demand for all types of recreation facilities and opportunities, including urban recreation and open space, would be most fully met. Some recreationists would be displaced. Greatest adverse effect on visual quality.	Possible adverse effects on the agricultural sector of the economy, but possibly offset by gains to commercial and recreation services sectors.	Although regulated, OHV use could still adversely affect cultural resources; adverse effects could be offset by intensive surveys and OHV use plan.	OHV use could still adversely affect sites; adverse effects could be offset by OVH use plan.	Same as Alternative A.	Same as Alternative B, plus potential for short-term employment for minority or low-income individuals.
Natural Resources Conservation/ Protection with Limited Recreation, Community, and Commercial Development (Alternative D) (Preferred Alternative)	Greater adverse effect than Alternative B but a less adverse effect than Alternative C.	Greater adverse effects than Alternative B but less than Alternative C because of less development, fewer roads, and elimination of recreational OHV use.	Same as Alternative C, except eliminating OHV use would decrease wind erosion of soil in denuded areas.	Greater benefit to nearby communities than Alternative B; less benefit than Alternative C. Greater benefit to natural and cultural resources than Alternative C.	Public demand and need for access would be met.	Effects on groundwater availability would be less than under Alternative C; same effects as Alternatives B and C on groundwater quality.	Substantial improvement in habitat protection and enhancement.	Substantial reduction in factors causing mortalities and injuries, as well as habitat loss and degradation.	Public demand for most types of recreation facilities and opportunities, including urban recreation and open space, would be partially met. Some recreationists would be displaced. Less adverse effect on visual quality than Alternative C.	Similar to Alternative C, except net gains in the commercial and recreation services sectors of the economy may be less.	Same as Alternative B.	Same as Alternative B.	Same as Alternative A.	Same as Alternative C.